

Amendments to the Claims:

1. (Withdrawn) A method comprising:

storing package identification data identifying at least one package containing one or more products, in association with object identification data identifying an object related to the product.

2. (Withdrawn) A method as claimed in claim 1 wherein the object is the product.

3. (Withdrawn) A method as claimed in claim 1 wherein the object is the package.

4. (Withdrawn) A method as claimed in claim 1 wherein the object is a group of packages.

5. (Withdrawn) A method as claimed in claim 1 wherein the object is a parent containing at least one child object identified by respective object identification data.

6. (Withdrawn) A method as claimed in claim 1 further comprising:

storing event data indicating status of an event related to the package, in association with the package identification data.

7. (Withdrawn) A method as claimed in claim 6 wherein the event data comprises description data describing the event associated with the event data

8. (Withdrawn) A method as claimed in claim 7 wherein the description of the event comprises at least one of "package pick up," "package received at pickup distribution hub," "package exited pickup distribution hub," "package on long-haul transport," "package off long-haul transport," "package arrived at receive distribution hub," "package exited receive distribution hub," and "package delivered."

9. (Withdrawn) A method as claimed in claim 8 wherein the event data comprises location data indicating a location at which the event occurred.

10. (Withdrawn) A method as claimed in claim 9 wherein the location includes at least one of a drop location, carrier store, service center, pickup vehicle, sender's location, package intake of send distribution hub, package outlet of send distribution hub, package inlet to long-haul transport, package outlet to long-haul transport, package intake of receive distribution hub, package outlet of receive distribution hub, and receiver's location.

11. (Withdrawn) A method as claimed in claim 6 wherein the event data comprises data indicating the date and time on which the event occurred.

12. (Withdrawn) A method as claimed in claim 6 further comprising:
tagging at least one of the package identification data, object identification data, and event data.

13. (Withdrawn) A method as claimed in claim 1 further comprising:
tagging at least one of the package identification data and object identification data.

14. (Withdrawn) A method as claimed in claim 1 further comprising:
receiving the object identification data.

15. (Withdrawn) A method as claimed in claim 1 further comprising:
generating the package identification data.

16. (Withdrawn) A method as claimed in claim 1 further comprising:
receiving the event data.

17. (Withdrawn) A method comprising:
- receiving object identification data identifying an object directly or indirectly associated with a product;
 - obtaining package identification data identifying a package in which the product is shipped;
 - linking object identification data to package identification data;
 - generating shipping label including package identification data;
 - providing shipping label to a sender of the package;
 - transporting package with product and having shipping label from the sender to a receiver;
 - receiving event data generated at one or more portals as the package is transported from sender to receiver; and
 - storing event data in correspondence with the linked object identification data and package identification data.

18. (Withdrawn) A method as claimed in claim 17 wherein the object is the product.

19. (Withdrawn) A method as claimed in claim 17 wherein the object is the package.

20. (Withdrawn) A method as claimed in claim 17 wherein the object is a group of packages.

21. (Withdrawn) A method as claimed in claim 17 wherein the object is a parent that comprises at least one child object identified by respective object identification data.

22. (Withdrawn) A method as claimed in claim 17 wherein the object identification data is received from the computer system of the sender of the package.

Appl. No.: 10/616,770
Amdt. dated January 21, 2009
Reply to Office Action of October 24, 2008

23. (Withdrawn) A method as claimed in claim 17 wherein the received object identification data is generated by a scanner of one of the portals.

24. (Withdrawn) A method as claimed in claim 17 wherein the package identification data is obtained by receiving the package identification data from the computer system of the sender of the package.

25. (Withdrawn) A method as claimed in claim 17 wherein the package identification data is obtained by generating the package identification data.

26. (Withdrawn) A method as claimed in claim 17 further comprising:
tagging at least one of the object identification data, package identification data, and event data.

27. (Withdrawn) A method as claimed in claim 17 further comprising:
transmitting object identification data, package identification data, and event data to an object naming service (ONS) computer system.

28. (Withdrawn) A method as claimed in claim 17 further comprising:
transmitting object identification data to an object naming service (ONS) computer system;
receiving a network address corresponding to the object identification data from the ONS computer system; and
transmitting the object identification data, package identification data, and event data to a physical mark-up language (PML) computer system using the received network address.

29. (Withdrawn) A method comprising:

receiving object identification data from a requesting computer system;

retrieving a network address for a physical mark-up language (PML) computer system based on the object identification data;

transmitting the network address to the requesting computer system;

receiving the network address at the requesting computer system;

transmitting the object identification data and package identification data from the requesting computer system to an additional computer system; and

storing the object identification data in association with the package identification data in the additional computer system.

30. (Withdrawn) A method comprising:

receiving object identification data, package identification data, and event data at an object naming service (ONS) computer system;

retrieving a network address for the PML computer system using object identification data; and

transmitting object identification data, package identification data, and event data to the PML computer system using the network address.

31. (Withdrawn) A method comprising:

receiving object identification data, package identification data, and event data and corresponding tags; and

storing the object identification data, package identification data, and event data in a data storage unit in association with the tags.

32. (Withdrawn) A method comprising:
receiving a request from a computer system to access data with object identification data and tags;
retrieving data from a data storage unit based on the object identification data and tags;
and
transmitting the retrieved data to the computer system generating the request.

33. (Currently Amended) A system for transporting a package from a sender to a receiver by a carrier, the system comprising:

a sender computer system comprising:

a processor configured to:

transmit object identification data identifying an object, the object defined by a sender to identify either a product, a package containing the product, or a group of packages containing products; and

a carrier computer system comprising:

a processor configured to:

receive the object identification data;

receive package identification data;

receive event data that is generated as the object passes through at least one portal having at least one scanner;

link the object identification data in association directly with the package identification data and link the event data in association directly with the package identification data;

store the object identification data in association with the linked package identification data and the event data in association with the linked package identification data;

tag the object identification data, the package identification data, and the corresponding event data such that the tagged data can be read and used by computer systems implementing various data formats, protocols, and applications; and
transmit the tagged data to a third computer system.

34. (Original) A system as claimed in claim 33 wherein the object is the product.

35. (Original) A system as claimed in claim 33 wherein the object is the package.

36. (Previously Presented) A system as claimed in claim 33 wherein the object is the group of packages.

37. (Original) A system as claimed in claim 33 wherein the object is a parent that contains at least one child object having respective object identification data.

38. (Previously Presented) A system as claimed in claim 33 wherein the processor of the sender computer system is further configured to:

transmit the package identification data to the carrier computer system.

39. (Previously Presented) A system as claimed in claim 33 wherein the package identification data is provided by the scanner of the first portal to encounter the package as the carrier transports the package from sender to receiver.

40. (Original) A system as claimed in claim 33 wherein the scanner comprises an optical scanner that scans the package identification data from a shipping label attached to the package.

41. (Original) A system as claimed in claim 40 wherein the package identification data is in the form of a barcode scanned by the optical scanner.

42. (Previously Presented) A system as claimed in claim [[41]] 33 wherein the scanner comprises an electro-magnetic scanner scanning at least the object identification data from the product inside of the package.

43. (Original) A system as claimed in claim 42 wherein the object identification data is encoded in a radio frequency identification (RFID) tag scanned by the electromagnetic scanner.

44. (Original) A system as claimed in claim 33 wherein the portal is associated with an event related to the status of the package in route from the sender to the receiver within the transport and storage network of the carrier.

45. (Original) A system as claimed in claim 33 wherein the portal is located at one of a drop location, carrier store, service center, pickup vehicle, sender's location, package intake of send distribution hub, package outlet of send distribution hub, package inlet to long-haul transport, package outlet to long-haul transport, package intake of receive distribution hub, package outlet of receive distribution hub, and receiver's location.

46. (Canceled)

47. (Canceled)

48. (Previously Presented) A system as claimed in claim 33 wherein the event data includes description data associated with the event describing the event by using the identity of at least one of the scanner and portal reporting the package identification data to the carrier computer system.

49. (Original) A system as claimed in claim 48 wherein the description data comprises characters describing the event as at least one of "package pick up," "package received at pickup distribution hub," "package exited pickup distribution hub," "package on long-haul transport," "package off long-haul transport," "package arrived at receive distribution hub," "package exited receive distribution hub," and "package delivered."

50. (Previously Presented) A system as claimed in claim 33 wherein the event data comprises location data indicating a location at which the event occurred.

51. (Previously Presented) A system as claimed in claim 50 wherein the processor of the carrier computer system is further configured to:

determine the location at which the event occurred based on data identifying at least one of the scanner and portal received with the package identification data.

52. (Original) A system as claimed in claim 50 wherein the scanner generates location data indicating a location at which the event corresponding to the event data occurred, the location data included with the package identification data reported by the scanner.

53. (Previously Presented) A system as claimed in claim 52 wherein the location includes at least one of a drop location, carrier store, service center, pickup vehicle, sender's location, package intake of send distribution hub, package outlet of send distribution hub, package inlet to long-haul transport, package outlet to long-haul transport, package intake of receive distribution hub, package outlet of receive distribution hub, and receiver's location.

54. (Previously Presented) A system as claimed in claim 33 wherein the event data comprises data indicating the date and time at which the event occurred.

55. (Previously Presented) A system as claimed in claim 54 wherein the processor of the carrier computer system is further configured to:

timestamp the received package identification data from the scanner with date and time data and store the same in association with the package identification data.

56. (Previously Presented) A system as claimed in claim 54 wherein the scanner timestamps the package identification data and transmits the same to the carrier computer system.

57. – 59. (Canceled)

60. (Withdrawn) A computer system receiving from a requesting computer system object identification data identifying an object related to a product that is shipped in a package from a sender to a receiver by a carrier via a communications network, the computer system comprising:

a computer connected to the communications network; and

a data storage unit connected to the computer, and storing a network address of a physical mark-up language (PML) computer system for storing and providing access to event data indicating events related to the object as it is shipped by the carrier from the sender to the receiver, the computer receiving a request for the network address and providing same to the requesting computer system.

61. (Withdrawn) A computer system receiving via a communications network from a requesting computer system a request to access object identification data related to a product, package identification data identifying a package containing the product, and event data related to events related to the object as it transits from a sender to a receiver through the transport and storage network of a carrier, the computer system comprising:

a data storage unit storing the object identification data, package identification data, and event data in association with one another; and

a computer connected to the communications network to receive the request to access the object identification data, package identification data, and event data, the computer determining whether the requesting computer is authorized to access the object identification data, package identification data, and event data, and retrieving providing such data to the requesting computer system if the requestor is authorized to access such data.

62. (Withdrawn) A computer-readable medium storing a computer program that can be executed by a computer to store package identification data identifying at least one package in association with object identification data identifying at least one object associated with at least one product contained by the package.

63. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the object is the product.

64. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the object is the package.

65. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the object is a group of packages.

66. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the object is a parent that comprises at least one child object having respective object identification data.

67. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the computer program can further be executed to store event data indicating an event related to the package as it is shipped and stored in a carrier network from a sender to a receiver, in association with the package identification data.

68. (Withdrawn) A computer-readable medium as claimed in claim 67 wherein the event data comprises description data describing the event associated with the event data.

69. (Withdrawn) A computer-readable medium as claimed in claim 68 wherein the description data identifying the event comprises characters indicating at least one of "package pick up," "package received at pickup distribution hub," "package exited pickup distribution hub," "package on long-haul transport," "package off long-haul transport," "package arrived at receive distribution hub," "package exited receive distribution hub," and "package delivered."

70. (Withdrawn) A computer-readable medium as claimed in claim 67 wherein the event data comprises location data indicating a location at which the event occurred.

71. (Withdrawn) A computer-readable medium as claimed in claim 70 wherein the location data identifies at least one of a drop location, carrier store, service center, pickup vehicle, sender's location, package intake of send distribution hub, package outlet of send distribution hub, package inlet to long-haul transport, package outlet to long-haul transport, package intake of receive distribution hub, package outlet of receive distribution hub, and receiver's location.

72. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the event data comprises data indicating the date and time on which the event occurred.

73. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the computer program can further be executed to tag at least one of the package identification data, object identification data, and event data.

74. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the computer program can be executed by tagging at least one of the package identification data and object identification data.

75. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the computer program can be executed by the computer to receive the object identification data from a sender's computer system.

76. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the computer program can be executed by the computer to generate the package identification data associated with the package containing the product.

77. (Withdrawn) A computer-readable medium as claimed in claim 62 wherein the computer program can be executed by the computer to generate the event data associated with the product in response to receiving data from a scanner of a portal through which the package and contained product passes.

78. (Withdrawn) A computer-readable medium storing package identification data identifying at least one package in association with object identification data identifying one or more objects associated with at least one product contained by the package.

79. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the object is the product.

80. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the object is the package.

81. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the object is a group of packages.

82. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the object is a parent comprising at least one child object with respective object identification data.

83. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the computer-readable medium further stores event data indicating an event related to the package, in association with the package identification data.

84. (Withdrawn) A computer-readable medium as claimed in claim 83 wherein the event data comprises description data describing the event associated with the event data.

85. (Withdrawn) A computer-readable medium as claimed in claim 84 wherein the description data identifying the event comprises characters indicating at least one of "package pick up," "package received at pickup distribution hub," "package exited pickup distribution hub," "package on long-haul transport," "package off long-haul transport," "package arrived at receive distribution hub," "package exited receive distribution hub," and "package delivered."

86. (Withdrawn) A computer-readable medium as claimed in claim 83 wherein the event data comprises location data indicating a location at which the event occurred.

87. (Withdrawn) A computer-readable medium as claimed in claim 86 wherein the location data identifies at least one of a drop location, carrier store, service center, pickup vehicle, sender's location, package intake of send distribution hub, package outlet of send distribution hub, package inlet to long-haul transport, package outlet to long-haul transport, package intake of receive distribution hub, package outlet of receive distribution hub, and receiver's location.

88. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the event data comprises data indicating the date and time on which the event occurred.

89. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the computer-readable medium further stores at least one tag associated with respective package identification data, object identification data, and event data.

90. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the computer-readable medium stores at least one tag in association with the package identification data and object identification data.

91. (Withdrawn) A computer-readable medium as claimed in claim 78 wherein the computer program can be executed by the computer to receive the object identification data from a sender's computer system.

92. (Withdrawn) A computer-readable medium storing a computer program that can be executed by a computer to: receive object identification data identifying at least one object associated with one or more products; obtain package identification data identifying a package containing the product; link the object identification data to the package identification data; generate a shipping label including the package identification data; provide the shipping label to a sender of a package containing the product; receive event data generated at one or more portals as the package is transported from sender to receiver via a carrier; and store event data in correspondence with the linked object identification data and package identification data.

93. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the object is the product.

94. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the object is the package.

95. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the object is a group of packages.

96. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the object is a parent comprising at least one child object with respective object identification data.

97. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the computer program can be executed by the computer to receive the object identification data from the computer system of a sender of the package.

98. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the computer program can be executed by the computer to receive object identification data generated by a scanner of the portal.

99. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the package identification data is obtained by receiving the package identification data from the computer system of a sender of the package.

100. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the computer program is executed by the computer to generate the package identification data in a shipping label provided from a computer system to the sender of the package.

101. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the computer program is executed by the computer to tag at least one of the object identification data, package identification data, and event data.

102. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the computer program is executed to transmit object identification data, package identification data, and event data to an object naming service (ONS) computer system.

103. (Withdrawn) A computer-readable medium as claimed in claim 92 wherein the computer program is executed to transmit object identification data to an object naming service (ONS) computer system, receive a network address corresponding to the object identification data from the ONS computer system, and transmit the object identification data, package identification data, and event data to a physical mark-up language (PML) computer system using the received network address.

104. (Withdrawn) A computer-readable medium storing a computer program that can be executed by a computer to: receive object identification data identifying at least one object associated with one or more products from a requesting computer system; retrieve a network address for a physical mark-up language (PML) computer system storing event data indicating at least one event related to a package containing at least one product as it progresses in a carrier network from a sender to a receiver, based on the object identification; and transmit the network address to the requesting computer system.

105. (Withdrawn) A computer-readable medium storing a computer program that can be executed by a computer of an object naming service (ONS) computer system to receive object identification data, package identification data, and event data; retrieve a network address for a physical mark-up language (PML) computer system using object identification data; and transmit object identification data, package identification data, and event data to the PML computer system using the network address.

106. (Withdrawn) A computer-readable medium storing a computer program that can be executed by a computer to receive object identification data, package identification data, and event data and corresponding tags, and store the object identification data, package identification data, and event data in a data storage unit connected to the computer in association with the tags.

107. (Withdrawn) A computer-readable medium storing a computer program that can be executed by a computer to: receive a request from a computer system to access data with object identification data and tags, the object identification data associated with at least one object related to one or more products; retrieve data from a data storage unit based on the object identification data and tags; and transmit the retrieved data to the computer system generating the request.

108. (Withdrawn) A computer-readable medium as claimed in claim 107 wherein the object is the product.

109. (Withdrawn) A computer-readable medium as claimed in claim 107 wherein the object is a package containing the products.

110. (Withdrawn) A computer-readable medium as claimed in claim 107 wherein the object is a group of packages containing the products.

111. (Withdrawn) A computer-readable medium as claimed in claim 107 wherein the object is a parent comprising at least one child object with respective object identification data.

112. (Withdrawn) A method as claimed in claim 1 further comprising:
associating package identification data with the package.

113. (Withdrawn) A method as claimed in claim 112 wherein the associating comprises substeps of:

generating a shipping label including package identification data; and
attaching the shipping label to the package.

114. (Withdrawn) A method as claimed in claim 1 further comprising:
scanning the package identification data from the package.

115. (Withdrawn) A method as claimed in claim 114 wherein the package identification data is scanned from a shipping label attached to the package.

116. (Withdrawn) A method as claimed in claim 114 wherein the package identification data comprises a barcode that is optically scanned.

117. (Withdrawn) A method as claimed in claim 114 wherein the package identification data comprises a tag that is electromagnetically scanned.

118. (Withdrawn) A method as claimed in claim 117 wherein the tag is a radio frequency identification (RFID) tag.

119. (Withdrawn) A method as claimed in claim 1 further comprising:
scanning the object identification data from the product.

120. (Withdrawn) A method as claimed in claim 119 wherein the object identification data is optically scanned.

121. (Withdrawn) A method as claimed in claim 119 wherein the object identification data is encoded in a barcode that is optically scanned.

122. (Withdrawn) A method as claimed in claim 119 wherein the object identification data is scanned from a product inside of the package.

123. (Withdrawn) A method as claimed in claim 119 wherein the object identification data is electromagnetically scanned from a tag associated with the product.

124. (Withdrawn) A method as claimed in claim 123 wherein the tag comprises a radio frequency identification (RFID) tag.

125. (Previously Presented) A system as claimed in claim 33, wherein the third computer system comprises a processor configured to:

- receive the tagged data from the carrier computer system;
- retrieve a corresponding network address of a fourth computer system; and
- transmit the network address to the carrier computer system.

126. (Previously Presented) A system as claimed in claim 125, wherein the fourth computer system, corresponding to the network address, comprises a processor configured to:

- receive and store the tagged data;
- receive a request from one or more other computer systems of the sender, carrier, receiver, or supplier for the tagged data; and
- retrieve and transmit the tagged data that can be read and used by computer systems implementing various data formats, protocols, and applications.

127. (Currently Amended) A system for transporting a package from a sender to a receiver by a carrier, the system comprising:

a carrier computer system comprising:

a processor configured to:

- receive the object identification data;
- receive package identification data;
- receive event data that is generated as the object passes through at least one portal having at least one scanner;

~~store~~link the object identification data ~~in association~~directly with the package identification data and link the event data ~~in association~~directly with the package identification data;

store the object identification data in association with the linked package identification data and the event data in association with the linked package identification data;
tag the object identification data, the package identification data, and the corresponding event data such that the tagged data can be read and used by computer systems implementing various data formats, protocols, and applications; and
transmit the tagged data to a third computer system.

128. (Previously Presented) A system as claimed in claim 127 further comprising:
a sender computer system comprising:

a processor configured to:

transmit object identification data identifying an object, the object defined by a sender to identify either a product, a package containing the product, or a group of packages containing products;

129. (Previously Presented) A system as claimed in claim 127, wherein the third computer system comprises a processor configured to:

receive the tagged data from the carrier computer system;
retrieve a corresponding network address of a fourth computer system; and
transmit the network address to the carrier computer system.

130. (Previously Presented) A system as claimed in claim 129, wherein the fourth computer system comprises a processor configured to:

receive and store the tagged data;
receive a request from one or more other computer systems of the sender, carrier, receiver, or supplier for the tagged data; and
retrieve and transmit the tagged data that can be read and used by computer systems implementing various data formats, protocols and applications.

131. (Previously Presented) A system as claimed in claim 127 wherein the object is the product.

132. (Previously Presented) A system as claimed in claim 127 wherein the object is the package.

133. (Previously Presented) A system as claimed in claim 127 wherein the object is the group of packages.

134. (Previously Presented) A system as claimed in claim 33, wherein the third computer system transmits a network address to the carrier computer system, the processor of the carrier computer system utilizes the network address to transmit the object identification data, the package data, the event data and the tagged data to a fourth computing system comprising a processor configured to utilize the tagged data to incorporate the object identification data, the package data and the event data in one or more applications of the fourth computing system.

135. (Previously Presented) A system as claimed in claim 127, wherein the third computer system comprises a processor configured to transmit a network address to the carrier computer system, the processor of the carrier computer system utilizes the network address to transmit the object identification data, the package data, the event data and the tagged data to a fourth computing system comprising a processor configured to utilize the tagged data to incorporate the object identification data, the package data and the event data in one or more applications of the fourth computing system.

136. (Previously Presented) A system as claimed in claim 33, wherein the tagged data is in an extensible markup language (XML) format.

137. (Previously Presented) A system as claimed in claim 127, wherein the tagged data is in an extensible markup language (XML) format.

138. (New) The system of claim 33, wherein the processor is further configured to generate the link between the object identification data and the package identification data by associating one or more records of the object identification data with one or more corresponding records of the package identification data.

139. (New) The system of claim 127, wherein the processor is further configured to generate the link between the object identification data and the package identification data by associating one or more records of the object identification data with one or more corresponding records of the package identification data.

140. (New) The system of claim 33, wherein the processor is further configured to: generate a record indicative of the link between the package identification data and the event data; and

store the record.

141. (New) The system of claim 127, wherein the processor is further configured to: generate a record indicative of the link between the package identification data and the event data; and

store the record.

142. (New) The system of claim 33, wherein the processor is further configured to link the event data to the object identification data based on the record.

143. (New) The system of claim 127, wherein the processor is further configured to link the event data to the object identification data based on the record.